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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,776	12/12/2003	Alan Kraemer	SRSLABS.323A	1852

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EXAMINER	
LEE, PING	

ART UNIT	PAPER NUMBER
2615	

NOTIFICATION DATE	DELIVERY MODE
08/10/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
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Office Action Summary

Application No.

10/734,776

Applicant(s)

KRAEMER ET AL.

Examiner

Ping Lee

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-53 is/are pending in the application.
- 4a) Of the above claim(s) 42, 43, 52 and 53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34-41 and 44-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of species 4 in the reply filed on 7/3/07 is acknowledged.
2. Claims 42, 43, 52 and 53 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/3/07.
3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 34, 36, 39, 41, 44, 46, 49 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Klayman (US 5,892,830).

Regarding claims 34 and 44, Klayman discloses a method of generating a monophonic (according to dictionary, monophonic means having a single

unaccompanied melodic line; the right out can generate an output to a speaker without the signal from the left out) output (RIGHT OUT) from a pair of input signals comprising:

enhancing a first input (enhanced left in by 36) to produce enhanced first information;

enhancing a second input (any of 30, 32, 38, 46, 48) to produce enhanced second information;

inverting the enhanced second information (52 or 54 at the adder 56); and

combining (by 56) at least a portion of the enhanced first information with at least a portion of the inverted enhanced second information to generate an enhanced monophonic output (at 62).

Regarding claims 36 and 46, Klayman shows that the act of enhancing the first input and the act of enhancing the second input comprises adjusting amplitude of the first input and adjusting amplitude of the second input.

Regarding claims 39 and 49, Klayman shows that the sound is reproduced by a speaker (computer speaker on col. 3, line 7) wherein the acts of enhancing are dependent on speaker characteristics of the speaker (col. 3, lines 6-21).

Regarding claims 41 and 51, Klayman shows the DSP (in a computer).

6. Claims 34-40 and 44-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Oki et al (hereafter Oki) (US 4,972,489).

Regarding claim 34 and 44, Oki discloses method of generating a monophonic output from a pair of input signals comprising:

enhancing a first input to produce enhanced first information (by 13a, 10a);

enhancing a second input to produce enhanced second information (by 12b);
inverting the enhanced second information (by 13b; col. 4, lines 36-41 with 180° phase shift); and
combining (by 14) at least a portion of the enhanced first information with at least a portion of the inverted enhanced second information to generate an enhanced monophonic output.

Regarding claim 35 and 45, Oki shows in Fig. 11 the step of phase adjusting the first input to produce phase adjusted first information (by 13a); and phase adjusting the second input to produce phase adjusted second information (by 18), wherein the act of combining combines (by 14) at least a portion of the phase adjusted first information (from 13a), at least a portion of the phase adjusted second information (from 18), at least a portion of the enhanced first information (from 10c), and at least a portion of the inverted enhanced second information (from 13b with 180° phase shift) to generate an enhanced monophonic output.

Regarding claims 36 and 46, Oki shows the act of enhancing the first input and the act of enhancing the second input comprises adjusting amplitude of the first input and adjusting amplitude of the second input (by 10s).

Regarding claim 37 and 47, Oki shows the act of enhancing the first input and the act of enhancing the second input comprises adjusting an amplitude and phase of the first input (by 103 and 10a) and adjusting the amplitude and phase of the second input (by 10b, and one of 51 as shown in Fig. 9a, and the last phase shifter as the inverter).

Regarding claim 38 and 48, Oki shows that adjusting the phase modifies a frequency response at frequencies where the frequency responses of an audio enhancement system have approximately equal amplitudes and opposite phases so as to preserve audio information at the frequencies (see Fig. 8s).

Regarding claims 39 and 49, Oki shows the step of reproducing audio from the enhanced monophonic output through a speaker wherein the acts of enhancing are dependent on speaker characteristics of the speaker (as disclosed on col. 3, line 58+, the invention is tried to eliminate the standing wave produced by the speaker).

Regarding claims 40 and 50, Oki shows the acts of enhancing the first input and the second input comprise filtering and adjusting the gain of the first input and the second input (by 12a, 12b, 10a, 10b).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522. The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ping Lee
Primary Examiner
Art Unit 2615

pwl